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10/054,546	01/18/2002	William Ho Chang	FLEX 2405	7165

			EXAMINER
7812	7590	06/01/2006	HUNTSINGER, PETER K

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ART UNIT	PAPER NUMBER
2625	

DATE MAILED: 06/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>20 March 2006</u>.

2a) ☐ This action is **FINAL.** 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-34</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-34</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments, see page 8, filed 3/20/06, with respect to the rejection(s)

of claim(s) 7-13 under Lin et al. Publication 2002/0076103 have been fully considered

and are persuasive. Therefore, the rejection has been withdrawn. However, upon

further consideration, a new ground(s) of rejection is made in view of Lin et al.

Publication 2002/0076103, in further view of Jacobs Patent 6,584,903.

Claim Objections

2.   Claim 28 is objected to because of the following informalities: The phrase

"decoding at the output device teh intermediate output data" should be changed to

"decoding at the output device ~~teh~~ the intermediate output data". Appropriate correction

is required.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-3, 6-9, 11-13, 22-25, and 27-33 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Lin et al. Publication 2002/0076103, and further in view of

Jacobs Patent 6,584,903.

Referring to claim 1, Lin et al. disclose a raster image processing method for

processing content into an output data acceptable for rendering by an output engine

included in an output device (Print Engine 32 of Fig. 1, page 2, paragraph 34), the

output data corresponding to data content accessible at least partly from an information

apparatus (image rendering system of Fig. 1, page 2, paragraph 31), the method

comprising: rasterizing at the information apparatus at least part of the content into one

or more output images (page 2, paragraph 32); generating at the information apparatus

an intermediate output data for rendering of the data content at the output device, the

intermediate output data including said one or more output images (pixel map, page 2,

paragraph 32); transmitting the intermediate output data from the information apparatus

for rendering at the output device (page 2, paragraph 31); performing at least one image

processing operation, at an output controller (page 2, paragraph 31) that is distinct from

the information apparatus and associated with the output device, on said one or more

output images included in the intermediate output data (page 3, paragraph 41); and

conforming at the output controller the intermediate output data into the output data

acceptable for rendering by the output engine (page 1-2, paragraph 15). Lin et al. do

not disclose expressly an output device that is distinct from the information apparatus

and a rasterization parameter associated with the output device. Jacobs discloses an

output device that is distinct from an information apparatus (col. 1, lines 53-57) and at

least one rasterization parameter associated with the output device (abstract). Lin et al.

and Jacobs are combinable because they are from the same field of printing systems.

At the time of the invention, it would have been obvious to a person of ordinary skill in

the art to provide an output device that is distinct from an information apparatus and to

rasterize an image based on a rasterization parameter.   The motivation for doing so

would have been to allow using multiple independent printers and performing ideal

rasterization for multiple different printers. Therefore, it would have been obvious to

combine Jacobs with Lin et al. to obtain the invention as specified in claim 1.

Referring to claims 2 and 8, Jacobs discloses rasterizing at least part of the

content into said one or more output images with rasterization parameters that include

one or more of resolution, color space, output size, and bit depth (abstract).

Referring to claims 3 and 9, Lin et al. disclose encoding said one or more images

with mixed raster content encoding (page 3, paragraph 41).

Referring to claims 6 and 12, Lin et al. disclose conforming the intermediate

output data by performing one or more of compression, decompression, segmentation,

de-segmentation, storing, and retrieving (page 1-2, paragraph 15).

Referring to claim 7, Lin et al. disclose a raster image processing method for

processing content into an print data acceptable for rendering by an printing engine

included in an printing device (Print Engine 32 of Fig. 1, page 2, paragraph 34), the

printing device including a printer controller, the output data corresponding to data

content accessible at least partly from an information apparatus (image rendering

system of Fig. 1, page 2, paragraph 31), the method comprising: rasterizing at the

information apparatus at least part of the content into one or more output images (page

2, paragraph 32); generating at the information apparatus an intermediate output data

that includes one or more output images (pixel map, page 2, paragraph 32); transmitting

at the information apparatus the intermediate output data from the information

apparatus to a the printing device (page 2, paragraph 31); converting the intermediate

output data into a print data acceptable to the printer controller, and raster image

processing at the printer controller the print data for rendering by the printer engine

(page 1-2, paragraph 15). It is inherent that the printer of Lin et al. includes a processor

to render an image and a controller to receive data. Lin et al. do not disclose expressly

an output device that is distinct from the information apparatus and a rasterization

parameter associated with the output device. Jacobs discloses an output device that is

distinct from an information apparatus (col. 1, lines 53-57) and at least one rasterization

parameter associated with the output device (abstract). Lin et al. and Jacobs are

combinable because they are from the same field of printing systems. At the time of the

invention, it would have been obvious to a person of ordinary skill in the art to provide

an output device that is distinct from an information apparatus and to rasterize an image

based on a rasterization parameter. The motivation for doing so would have been to

allow using multiple independent printers and performing ideal rasterization for multiple

different printers. Therefore, it would have been obvious to combine Jacobs with Lin et

al. to obtain the invention as specified in claim 7.

Referring to claim 11, Lin et al. disclose interpreting the intermediate output data

and retrieving the one or more output images (page 1-2, paragraph 15).

Referring to claim 13, Lin et al. disclose converting the intermediate output data

includes embedding the one or more output image information into the print data (page

1-2, paragraph 15).

Referring to claim 22, Lin et al. disclose a raster image processor for processing

content, comprising: means for creating raster data by rasterizing at least part of the

content (page 2, paragraph 32); means for creating one or more images with at least

two raster-form layers for storing segmented information associated with at least part of

the content (page 3, paragraph 41); means for storing at least part of the raster data into

the at least two raster-form layers according to the segmented information (page 2,

paragraph 33); and means for passing said one or more images for delivery to an output

device or system (page 1-2, paragraph 15). . Lin et al. do not disclose expressly an

output device that is distinct from the information apparatus. Jacobs discloses an

output device that is distinct from an information apparatus (col. 1, lines 53-57). Lin et

al. and Jacobs are combinable because they are from the same field of printing

systems. At the time of the invention, it would have been obvious to a person of

ordinary skill in the art to provide an output device that is distinct from an information

apparatus.   The motivation for doing so would have been to allow using multiple

independent printers in the system of Lin et al. Therefore, it would have been obvious

to combine Jacobs with Lin et al. to obtain the invention as specified in claim 22.

Referring to claim 23, Lin et al. disclose creating raster data by rasterizing

content that includes at least part of a text or graphics information (page 2, paragraph

45).

Referring to claim 24, Lin et al. disclose creating one or more images with each

raster-form layer including one or more image attributes that differentiate it from other

layers, the one or more attributes including one or more of resolution, color space,

output size, bit depth, and compression method, digital watermark, and rendering intent

(page 3, paragraph 44).

Referring to claim 25, Lin et al. disclose one or more operations on one or more

of the raster-form layers that include one or more of compression, decompression,

segmentation, de-segmentation, storing, retrieving, color correction, color management,

scaling, interpolation, color space conversion, encryption, digital watermarking, and

halftoning. It is inherent that the processor of Lin et al. retrieves image data.

Referring to claim 27, Lin et al. disclose the output device or system includes

printing device (Print Engine 32 of Fig. 1, page 2, paragraph 34).

Referring to claim 28, Lin et al. disclose a raster image processing method for

processing content into output data acceptable for rendering by an output engine

included in an output device (Print Engine 32 of Fig. 1, page 2, paragraph 34), the

output data corresponding to content accessible at least partly from an information

apparatus (image rendering system of Fig. 1, page 2, paragraph 31), the method

comprising: rasterizing at the information apparatus at least part of the content into an

intermediate output data that includes at least an output image (page 2, paragraph 32)

with at least two raster-form data layers and a selector mask layer, each raster-form

data layer being associated with a segmentation type associated to an attribute related

to information contained in the data content (page 3, paragraph 43); receiving at the

output device the intermediate output data; performing at least one image processing

operation, at a processor distinct from the information apparatus and associated with

the output device, on each data layer of the output image (page 2, paragraph 31); and

conforming at the processor the output image into a form acceptable for rendering by

the output engine (page 1-2, paragraph 15). Lin et al. do not disclose expressly an

output device that is distinct from the information apparatus and decoding at the output

device the intermediate output data that includes the segmented output image. Jacobs

discloses an output device that is distinct from an information apparatus (col. 1, lines

53-57). It is inherent that the output device of Jacobs decodes data. A printer driver

accomplishes this by converting signals into data compatible with the printer. Lin et al.

and Jacobs are combinable because they are from the same field of printing systems.

At the time of the invention, it would have been obvious to a person of ordinary skill in

the art to provide an output device that is distinct from an information apparatus. The

motivation for doing so would have been to allow using multiple independent printers in

the system of Lin et al. Therefore, it would have been obvious to combine Jacobs with

Lin et al. to obtain the invention as specified in claim 28.

Referring to claim 29, Lin et al. disclose rasterizing content that includes at least

part of a text or graphics information (page 2, paragraph 45).

Referring to claim 30, Lin et al. disclose rasterizing content into raster-form layers

that each include one or more attributes that differentiate it from other layers, the one or

more attributes including one or more of resolution, color space, output size, bit depth,

and rendering intent (page 3, paragraph 43).

Referring to claim 31, Lin et al. disclose rasterizing content into raster-form data

layers each associated with segmentation information that includes an association with

one or more of a background and a foreground, and a luminance and a chrominance

(page 2, paragraph 43).

Referring to claim 32, Lin et al. disclose the segmented information includes an

association with one or more of text, graphics, image, video, and audio (page 2,

paragraph 45).

Referring to claim 33, Lin et al. disclose performing image processing operations

that include one or more of a compression, decompression, segmentation, de-

segmentation, storing, retrieving, color correction, color management, scaling, an

interpolation, color space conversion, encryption, digital watermarking, and halftoning.

It is inherent that the processor of Lin et al. retrieves image data.

5.   Claims 4, 10, 14-21, 26, and 34 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Lin et al. Publication 2002/0076103 and Jacobs Patent 6,584,903 as

applied to claims 1, 7, 22, and 28 above, and further in view of Cromer et al. Patent

6,493,104.

Referring to claims 4 and 10, Lin et al. disclose transmitting the intermediate

output data but do not disclose expressly utilizing wireless communication. Cromer et

al. disclose utilizing wireless communication for printing data (col. 5, lines 31-35). Lin et

al. and Cromer et al. are combinable because they are from the same field of printing

systems. At the time of the invention, it would have been obvious to a person of

ordinary skill in the art to transmit the intermediate output data by wireless

communication. The motivation for doing so would have been to eliminate the need for

a wire to physically connect the information apparatus and the controller. Therefore, it would have been obvious to combine Lin et al. and Cromer et al. to obtain the invention as specified in claims 4 and 10.

Referring to claim 14, Lin et al. disclose a method of processing content in an information apparatus, comprising: creating raster data by rasterizing at least part of the content (page 2, paragraph 32); creating one or more images with at least two raster-form layers for storing segmented information associated with at least part of the content (page 3, paragraph 41); storing at least part of the raster data into the at least two raster-form layers according to the segmented information (page 2, paragraph 33); and transmitting an output data that includes said one or more images to an output device or system for rendering (page 1-2, paragraph 15). Lin et al. do not disclose expressly an output device that is distinct from the information apparatus and a rasterization parameter associated with the output device. Jacobs discloses an output device that is distinct from an information apparatus (col. 1, lines 53-57) and at least one rasterization parameter associated with the output device (abstract). Lin et al. and Jacobs are combinable because they are from the same field of printing systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to provide an output device that is distinct from an information apparatus and to rasterize an image based on a rasterization parameter. The motivation for doing so would have been to allow using multiple independent printers and performing ideal rasterization for multiple different printers. Lin et al. do not disclose expressly transmitting the output data by local short range communication. Cromer et al. disclose

utilizing wireless communication for printing data (col. 5, lines 31-35). Lin et al. and

Cromer et al. are combinable because they are from the same field of printing systems.

At the time of the invention, it would have been obvious to a person of ordinary skill in

the art to transmit the intermediate output data by wireless communication. The

motivation for doing so would have been to eliminate the need for a wire to physically

connect the information apparatus and the controller. Therefore, it would have been

obvious to combine Jacobs and Cromer et al. with Lin et al. to obtain the invention as

specified in claim 14.

Referring to claim 15, Lin et al. disclose creating raster data by rasterizing

content that includes at least part of a text or graphics information (page 2, paragraph

45).

Referring to claim 16, Lin et al. disclose creating one or more images with each

raster-form layer including one or more image attributes that differentiate it from other

layers, the one or more attributes including one or more of resolution, color space,

output size, bit depth, and compression method, digital watermark, and rendering intent

(page 3, paragraph 44).

Referring to claim 17, Lin et al. disclose creating one or more images with at

least two raster-form layers for storing segmented information that includes an

association with one or more of a background and a foreground, and a luminance and a

chrominance (page 3, paragraph 43).

Referring to claim 18, Lin et al. disclose creating one or more images with at

least two raster-form layers for storing segmented information that includes an

association with one or more of a text, a graphics, an image, a video, and an audio

(page 3, paragraph 45).

Referring to claim 19, Lin et al. disclose creating one or more images with at

least two raster-form layers, and at least one a selector layer (page 3, paragraph 43).

Referring to claim 20, Lin et al. disclose one or more operations on one or more

of the raster-form layers that include one or more of compression, decompression,

segmentation, de-segmentation, storing, retrieving, color correction, color management,

scaling, interpolation, color space conversion, encryption, digital watermarking, and

halftoning (page 1-2, paragraph 15).

Referring to claims 21 and 34, Cromer et al. disclose transmitting the output data

by short-range wireless communication (abstract).

Referring to claim 26, Lin et al. disclose means for delivering the one or more

images to an output device or system but do not disclose wireless communication.

Cromer et al. disclose means for delivering the one or more images to an output device

or system with short-range wireless communication (col. 5, lines 31-35). Lin et al. and

Cromer et al. are combinable because they are from the same field of printing systems.

At the time of the invention, it would have been obvious to a person of ordinary skill in

the art to transmit the intermediate output data by wireless communication. The

motivation for doing so would have been to eliminate the need for a wire to physically

connect the information apparatus and the controller. Therefore, it would have been

obvious to combine Cromer et al. with Lin et al. to obtain the invention as specified in

claim 26.

6.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al.

Publication 2002/0076103 and Jacobs Patent 6,584,903, in further view of well known

prior art.

Referring to claim 5, Lin et al. disclose performing at least one image processing

operation, on the one or more output images that includes one or more of a color

correction operation, a color matching operation, a color management operation, a

scaling operation, an interpolation operation, a color space conversion, and a halftoning

operation. Official Notice is taken that it is well known in the art and obvious for a

printer to utilize halftoning. The motivation for doing so would have been to be able to

produce a plurality of tones using one color of ink. Therefore, it would have been

obvious to obtain the invention as specified in claim 5.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Peter K. Huntsinger whose telephone number is

(571)272-7435. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kimberly Williams can be reached on (571)272-7471. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PKH

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